

REMARKS/ARGUMENTS

The Applicants thank the Examiner for her discussion of this case in the brief telephonic dialogue concerning this case on July 25, 2006. This case is amended in accordance with the Examiner's guidance. All pending matters were discussed.

All pending claims (Claims 2-7, 9-13, and 16-19) stand rejected in the outstanding Office Action in view of the U.S. Patent to *Hasebe et al.* (USPN 6,713,849 hereinafter "*Hasebe*").

Claims 1, 8, 14, and 15 were previously cancelled and are not at issue here.

Independent Claims 2 and 9 have been amended herein to clarify certain patentable subject matter. Additionally, Claims 16-19 are also amended to clarify certain patentable subject matter and amended to be consonant with the amendment of the base Claim 16. Claims 2-7, 9-13 and 16-19 are now pending in this application. Entry of these amendments is respectfully requested. Reconsideration of the Application based on the Amendments and Remarks contained herein and the Request for Continued Examination filed herewith is respectfully requested.

Claim Objections

The Action has objected to Claims 17 and 19 for various informalities. Claims 17 and 19 have been amended to correct these informalities and for other reasons. For example Claim 17 recites that "the peripheral recessed ledge[[s]] portions extend uniformly ... around all of the outer edges of the die attach pads" thereby making the claim consistent. No new matter has been added. Accordingly, the Applicants respectfully request that the pending objections to the Claims 17 and 19 be withdrawn.

Claim Rejections Under 35 U.S.C. § 102

All pending Claims 2-7, 9-13 and 16-19 are now pending stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Hasebe*.

The Applicants address these rejections as follows. Base Claims 2, 10, and 16 are amended to clarify the structure of the "peripheral ledge" or "recessed ledge portion" at the edge of the die attach pad. During discussions with the Examiner (Examiner Doan) on July 25th, 2006, the Examiner indicated that a clarification of the claims to explain that the recessed portion of the peripheral recess extended to the edge (rather than comprising the "groove 20 of *Hasabe*") would overcome the pending rejection. The Examiner suggested that language indicating that

the recessed portion was “uniform” (i.e., that it did not become raised at the edge as is shown at 23/26 of *Hasabe*) should be added to successfully overcome the *Hasebe* reference. Such language is added to the amended claims.

For example, Claim 2, as amended, recites a lead frame panel with a plurality of device areas configured so that each device area has a die attach pad and a plurality of contacts and that “each die attach pad includes a die support surface and a uniform peripheral ledge that is recessed relative to the die support surface wherein the uniformly recessed peripheral ledges extend around the outer edges of the die attach pads” (emphasis added). This idea is clearly illustrated in the Figures (See, e.g., Figs. 3, 4C, and 6 and so on) of the present Specification. The ledge claimed is at the edge of the die attach pad and is a lower ledge portion that extends to the very edge of the pad and in some embodiments entirely around the edge of the pad. This is not the case in the cited art.

As a general proposition, the Applicants further point out that a “peripheral” ledge is an edge-mounted ledge. This is consistent with a dictionary definition of peripheral which is defined as *related to, located in, or constituting an outer boundary or periphery*. Thus, the recited ledge is at the edge of the die attach pad. Additionally, the claimed feature is a ledge, not a groove as taught and shown in the cited art. In particular, *Hasebe* teaches a groove (not a ledge) that does not extend to the edge of the die attach pad. The groove is rather interior from the edge of the die attach pad. This is clearly shown in *Hasebe*, for example, at groove 20 of Figs 1, 2, 5, 6, 9, 10, 15, 16, 17, 18, and so on. This feature is described throughout the specification as a “groove 20” (e.g., *Hasebe* Spec. at 8:48-9:9), not as a ledge. Additionally, the groove 20 does not, and cannot, extend to the edge along the entire periphery of the die attach pad. In this fundamental way, the claimed invention is different from the invention taught by *Hasebe*. Absent this fundamental feature of the claimed invention, the cited art fails to teach all elements of the claims. Accordingly, *Hasebe* does not establish a *prima facie* case for anticipation. Therefore, the Applicants respectfully submit that the Claim 2 is not anticipated by the cited art. Thus, Applicants request that this ground of rejection be withdrawn as to Claim 2 and the claims depending therefrom (Claims 3-7).

As to Claim 9, similar arguments can be made. Pursuant to the guidance of the Examiner, Claim 9 is amended to recite “a substrate having a die attach pad and a plurality of contacts, the die attach pad having an upper surface and a uniformly recessed peripheral ledge ... located proximate to, and surrounding, an outer edge of the upper surface and configured such

that the uniformly recessed peripheral ledge extends to an outer edge of the die attach pad". Again, this idea is illustrated in the Figures and Specification. The ledge, as claimed, surrounds the outer edge of the die attach pad and is a lower ledge portion that extends to the edge of the pad and entirely around the edge of the pad. This is not the case in the cited art. A "peripheral" ledge is an edge-mounted ledge. As explained above, this is consistent with a dictionary definition of peripheral. Thus, the recited ledge is at the edge of the die attach pad. Additionally, the claimed feature is a ledge, not a groove as taught and shown in the cited art. As explained above, *Hasebe* teaches a groove (not a ledge) that does not extend to the edge of the die attach pad but was rather interior from the edge of the die attach pad. This is clearly shown in *Hasebe*, for example, at groove 20 of Figs. 1, 2, 5, 6, 9, 10, 15, 16, 17, 18, and so on. This feature is described throughout the specification as a "groove 20" (e.g., *Hasebe* Spec. at 8:48-9:9), not as a ledge. Additionally, the groove 20 does not, and cannot, extend to the edge along the entire periphery of the die attach pad. In this fundamental way, the claimed invention is different from the invention taught by *Hasebe*.

Also as to Claim 16, similar arguments can be made. Pursuant to the guidance of the Examiner, Claim 9 is amended to recite "a lead frame panel including a plurality of device areas, each ... die attach pad includes a die support surface and a recessed ledge portion that is lower than die support surface and extends uniformly to ... an edge of the die attach pad". Again, this idea is illustrated in the Figures and Specification. The ledge, as claimed, extends to the outer edge of the die attach pad and is a lower ledge portion that extends to the edge of the pad and in some embodiments (See, Claims 17 et seq.) entirely around the edge of the pad. *Hasebe* does not teach this. A "peripheral" ledge is an edge-mounted ledge. This point is made more clear by the language "extends uniformly to ... an edge of the die attach pad". *Hasebe* does not extend uniformly to the edge rather requiring a raised extension 23 (thus *Hasebe* is not the uniform ledge as claimed). In contrast with the claim language, *Hasebe* requires a groove (hence not a uniform ledge) that does not extend to the edge of the die attach pad but was rather interior from the edge of the die attach pad. Moreover, despite contrary representations in the Action, this feature is described throughout the specification as a "groove 20" (e.g., *Hasebe* Spec. at 8:48-9:9), not as a ledge. Additionally, the groove 20 does not, and cannot, extend to the edge along the entire periphery of the die attach pad. In this fundamental way, the claimed invention is different from the invention taught by *Hasebe*.

Accordingly, the cited art fails to teach all elements of the claims as amended. Accordingly, *Hasebe* does not establish a *prima facie* case for anticipation as to the pending claims. Therefore, the Applicants respectfully submit that the Claims 2, 9, and 16, as now amended, are not anticipated by the cited art. Thus, Applicants request that this ground of rejection be withdrawn as to Claims 2, 9, and 16 and the claims depending therefrom (Claims 2-7, 10-12, and 17-19).

Conclusion:

In view of the foregoing amendments and remarks, it is respectfully submitted that the claimed invention as presently presented is patentable over the art of record and that this case is now in condition for allowance.

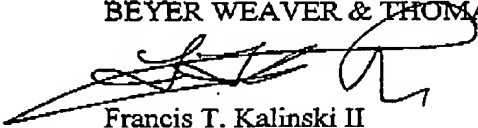
Accordingly, the Applicants request withdrawal of all pending rejections and request reconsideration of the pending application and prompt passage to issuance. As an aside, the Applicants clarify that any lack of response to any of the issues raised by the Examiner is not an admission by the Applicants as to the accuracy of the Examiner's assertions with respect to such issues. Accordingly, Applicants specifically reserve the right to respond to such issues at a later time during the prosecution of the present application, should such a need arise.

As always, the Examiner is cordially invited to telephone the Applicants' representative to discuss any matters pertaining to this case. Should the Examiner wish to contact the undersigned for any reason, the telephone number set out below can be used.

Additionally, if any fees are due in connection with the filing of this Amendment, the Commissioner is authorized to deduct such fees from the undersigned's Deposit Account No. 50-0388 (Order No. NSC1P295).

Respectfully submitted,

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